



Approval #

980055-U (Revised)

## Safety & Buildings Division

201 West Washington Avenue

P.O. Box 2689

Madison, WI 53701-2689

# Wisconsin Material Approval

Material

Poly-Flex HDPE Dike Liner

Manufacturer

Poly-Flex, Inc.  
2000 West Marshall Drive  
Grand Prairie, TX 75051

---

### SCOPE OF EVALUATION

The Poly-Flex High Density Polyethylene Dike Liner manufactured by Poly-Flex, Inc. has been evaluated for use as a synthetic dike liner in accordance with **s. Comm 10.345** of the current edition of the Wisconsin Administrative Flammable and Combustible Liquids Code. Poly-Flex is approved for use in the State of Wisconsin with all petroleum products, ethanol and petroleum/ethanol blends subject to the limitations listed below.

### DESCRIPTION AND USE

The Poly-Flex Liner is made of high-density polyethylene. Approved thicknesses are 60, 80 and 100 mils. It can be provided in widths up to 22.5 feet. Seams are made by a heat fusion method, either by a hot shoe welder or by an extrusion welder. When installed over compacted soil, the ends of the liner are anchored in a trench. The trench must have rounded edges to avoid sharp bends in the liner.

Mechanical attachment to concrete may be achieved by using stainless steel fittings and neoprene gaskets. Neoprene caulk provides a liquid-tight adhesive attachment between gaskets and fittings. Another attachment method is the Poly-Lok channel. Poly-Lok is 125 mil thick, formed HDPE which is cast into concrete to provide a weldable anchoring surface.

## TESTS AND RESULTS

TRI/Environmental, Inc., conducted chemical compatibility testing on Poly-Flex before and after immersion in unleaded gasoline, JP-5 jet fuel, and ethanol. Specimens were tested before immersion, immediately after 7 days of immersion and after 7 days of immersion followed by 12 hours in a drying oven. In all cases, the physical property changes were within acceptable limits established by the department.

## LIMITATIONS

Poly-Flex, with a minimum thickness of 60 mils, is approved as meeting the requirements of **s. Comm 10.345 (1)(e)** when installed and tested in accordance with manufacturer's specifications. The soil layers above and below the liner, normally required under **s. Comm 10.345 (1) (e) 2.**, are not required when installed and maintained in accordance with manufacturer's specifications.

Field seams shall be oriented down a slope rather than across a slope.

This approval will be valid through December 31, 2003, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The Wisconsin Material Approval Number must be provided when plans that include this product are submitted for review.

## DISCLAIMER

The department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement not specified in this document.

Reviewed by: \_\_\_\_\_

Approval Date: \_\_\_\_\_

Revision Date: \_\_\_\_\_ By: \_\_\_\_\_

Duane Hubeler, P.E.  
Mechanical Code Consultant  
Program Development Bureau